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**FINAL ENVIRONMENTAL ASSESSMENT**

*LOWER TULE RIVER IRRIGATION DISTRICT  
TULE RIVER INTERTIE PROJECT*

**Appendix H  
USFWS Determination Letter**

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January 2010



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846



In reply refer to:  
81420-2010-I-0134-1

**FEB 02 2010**

#### Memorandum

To: Michael Jackson, Area Manager, Bureau of Reclamation, South-Central California Area Office, Fresno, California

From: <sup>664</sup> Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California *McAmis*

Subject: Concurrence under Section 7 of the Endangered Species Act (ESA) With the Bureau of Reclamation's Determination that the Lower Tule River Intertie Canal ARRA Project May Affect, but is Not Likely to Adversely Affect Listed Species or Designated Critical Habitat

This memorandum transmits the Fish and Wildlife Service's (Service) concurrence with the Bureau of Reclamation's (Reclamation) November 13, 2009 determination that funding from Reclamation for the construction of the "Lower Tule River Intertie Canal ARRA Project", which includes modifications to the Wood Central Ditch (WCD) and construction of a new Intertie Canal enabling delivery of water diverted from the Tule River into the #2 North Canal (Tipton Ditch), Poplar Pipeline and the #1 North Canal (Casa Blanca Canal) in the Lower Tule River Irrigation District (LTRID) may effect, but is not likely to adversely affect San Joaquin kit fox (*Vulpes macrotis mutica*; [kit fox]) under the Endangered Species Act of 1973, as amended (ESA) (16 U.S.C. 1531 *et seq.*). Reclamation has also determined that other listed species are not expected to occur in the action area because of the lack of suitable habitat for these species and the Project will have no effect on these other listed species or critical habitats in the action area, and is not seeking concurrence for that determination.

#### Description of the Proposed Action

Reclamation is funding the LTRID's Intertie Canal ARRA Project (the Project) under the American Reinvestment and Recovery Act of 2009 (ARRA). The Project is located in Tulare County west of Porterville (Attachment 1). The Project includes modifications to the WCD, an existing LTRID conveyance facility which receives water diverted from the Tule River, and construction of an approximately 2.5 mile long canal from the WCD to intertie with the #2 North Canal (Tipton Ditch), Poplar Pipeline, and the #1 North Canal (Casa Blanca Canal), enabling LTRID to convey the water diverted from the Tule River into WCD (see Attachment 2). Various modifications would be made to WCD to increase conveyance capacity and enhance delivery capabilities and efficiency. Modifications to WCD would begin within the ditch itself near the Tule River point of diversion and continue westward for approximately 4,100 linear feet. Capacity of the



existing earthen WCD and associated structures within this section would be increased to convey up to 600 cubic feet per second (cfs).

Specific modifications to WCD would include the following:

1. Reshaping of approximately 4,100 linear feet of the channel for a consistent depth of 10 feet and side slope of 1.5 to 1.
2. Realignment of the diversion channel from the Tule River point of diversion to Dunning Crossing; and replacement of Dunning Crossing with a new open-span bridge.
3. Construction of a 45-foot wide, Replogle flume west of Dunning Crossing.
4. Demolition and removal of an existing farm crossing over WCD west of Road 208.
5. Modifications to the existing County Road 208 culvert.
6. Modification of an existing concrete three bay weir to add two new weir bays. The new five-bay weir would be approximately 31 feet wide with each new bay five feet wide.
7. Construction of an approximately 50-foot wide, 81-foot long new diversion structure between WCD and the new intertie canal west of Road 208.

The proposed earthen Intertie Canal would extend approximately 2.75 miles from the WCD south towards the Casa Blanca Canal (see Attachment 2). The Intertie Canal and associated structures could convey up to 300 cfs of water from the WCD south to Avenue 148 (Tipton Canal alignment). South of Avenue 148 to the Casa Blanca Canal, flow rates within the Intertie Canal would be decreased to 150 cfs. The construction of the Intertie Canal would generally have a 95-foot wide right of way (ROW) located largely along an alignment that is currently dirt access roads. The earthen Intertie Canal channel would generally be between 12 to 15 feet wide at the bottom and approximately 10 feet deep with 2 to 1 inner-side slopes.

LTRID has acquired approximately 35 acres for construction of the Intertie Canal. The Proposed Action would enable delivery of Tule River water from the WCD to lands served by the Tipton Ditch, Poplar Pipeline, and the Casa Blanca Canal. Tule River water would enter LTRID's facilities from an existing point of diversion on WCD. No work would be done within Tule River.

Staging of equipment and materials for the Project will occur in a disturbed area along the WCD and within the 95 foot-wide ROW secured by the district that will be converted to project uses. Construction activities for the Intertie Canal would be accomplished using large earthmoving equipment appropriate for this type of work such as graders, scrapers, loaders, long-boom excavators, backhoes, water trucks, hauling trucks, dump trucks, concrete trucks, cranes, and pumper trucks. The construction will take up to 14 months to complete.

*Avoidance and Minimization Measures for Listed Species.* Before ground disturbing activities may commence, standardized pre-activity surveys will be conducted using *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 1999) and standardized take avoidance and minimization measures implemented during the construction period.

### **San Joaquin Kit Fox Biology**

The kit fox occurs in annual grassland and mixed shrub/grassland habitats in low, rolling hills of the San Joaquin and adjoining inland coastal valleys (USFWS 1998). This species also forages in certain types of cultivated lands adjacent to natural areas, and populations are known from urbanized areas of Bakersfield and Taft (USFWS 1998). The kit fox ranges widely, uses open areas, including agricultural lands, and are known to travel along canal rights of way, such as the

nearby FKC ROW, which lies approximately 1 mile east of the project area and supports several records for kit fox. Kit fox have been reported as entering orchards (0.9 mile or 1.5 kilometers) and certain types of annual croplands (.7 mile or 1.1 km) to search for prey (Warrick, et al 2007) when they are using a ROW for denning.

### **Environmental Baseline**

The environmental baseline is an analysis of past and ongoing human and natural factors leading to the current status of the species, habitats (including critical habitat), and ecosystems within the action area. The baseline includes State, tribal, local, and private actions already affecting the species or that will occur at the same time as this consultation. Other unrelated Federal actions affecting the species or their critical habitat that have completed consultation are also included as part of the baseline.

The action area for this project is the footprint of the proposed earthmoving activities and a 250-foot buffer around those activities in which noise and dust could occur.

The project's action area is on the valley floor two miles west of the western city boundary of Porterville. The present land use is existing infrastructure, farm roads, and agricultural crops such as alfalfa and vine and tree crops. The action area is dominated by irrigated fields that are intensively managed. Virtually no native vegetation exists in the action area, and none is allowed to grow along the project alignment. Cultivation usually occurs up to the very margins of fields, roads or ditches. Herbicides are routinely used to control unwanted vegetation which typically includes all non-crop species.

Adequate grassland habitat to potentially support kit foxes is found northeast and southeast of the City of Porterville, approximately 6 miles from the action area, with the city and numerous roads creating a barrier to any animals using the project site. While some kit fox sightings in CNDDDB that are west of Porterville, the area in the vicinity of the project is now much more intensively cultivated and managed than was the case when those kit fox were seen. Records (CNDDDB 2009) identified kit fox from approximately 1 and 1.5 miles southeast of the project area. The most recent of these records is from 1992. (Attachment 3) Additional records for kit fox are recorded from along the Friant-Kern Canal (FKC), which generally runs parallel and approximately 1 mile east of the proposed project area. Other historic records for kit fox exist from the vicinity of Porterville, and west of the project area.

The alignment of the new canal contains a mix of agricultural habitats including alfalfa and vine and tree crops. Most of the land within the LTRID service area is devoted to irrigated agricultural production. Like much of the remaining San Joaquin Valley, the landscape is dominated by irrigated fields that are intensively managed. Virtually no native vegetation exists in the action area, and none is allowed to grow along the project alignment. Cultivation usually occurs up to the very margins of fields, roads or ditches. Herbicides are routinely used to control unwanted vegetation which typically includes all non-crop species. The undeveloped parcel just north of the Wood Central Canal alignment has been subject to frequent disturbance and is vegetated by grass and ruderal plant species.

### **Potential for Effects to Listed Species**

A biological survey of the project ROW and immediately adjacent land was conducted on June 14, 2007 (Vanherweg 2007). This biological survey of the project area did not locate individuals or sign of recent kit fox use in the Intertie Canal corridor or immediately adjacent properties, but

impacts identified from the project included temporary disturbance to a potential foraging, denning and movement corridor (Vanherweg 2007). The likelihood of kit fox occurring along the FKC at this time is unknown, but low. The likelihood that any of those animals might move across intensive agricultural fields to forage or den in the action area is even lower.

The Project will entail temporary and permanent earth disturbance. Coincident with the Canal construction, periodic maintenance would be required on the Canal, which will be the responsibility of LTRID as the owner/operator of the canal.

## **Conclusion**

After review of information provided to us in your November 13, 2009 memorandum, the information contained in the December 2009 Draft Environmental Assessment, Lower Tule River Irrigation District, Tule River Intertie Project, and other available information; the Service concurs with Reclamation's determination that construction of the Lower Tule River Intertie Canal may affect, but is not likely to adversely affect federally listed San Joaquin kit fox in the action area.

Based on the records and the species requirements, it is not likely that the project area would be used by kit fox for forage, or that kit fox would be using the project area as a migratory corridor. The project is located far enough away from the FKC that any kit using that corridor will not use the project site as forage habitat. Second, preconstruction surveys and standardized avoidance measures will be implemented for the project, and this will minimize the chance of effects from project activities. Should evidence of kit fox or their sign be found during preconstruction surveys, further consultation with Service will be required and project implementation would not proceed until consultation with Service has been completed and approval to proceed with the action has been provided.

## **Closing**

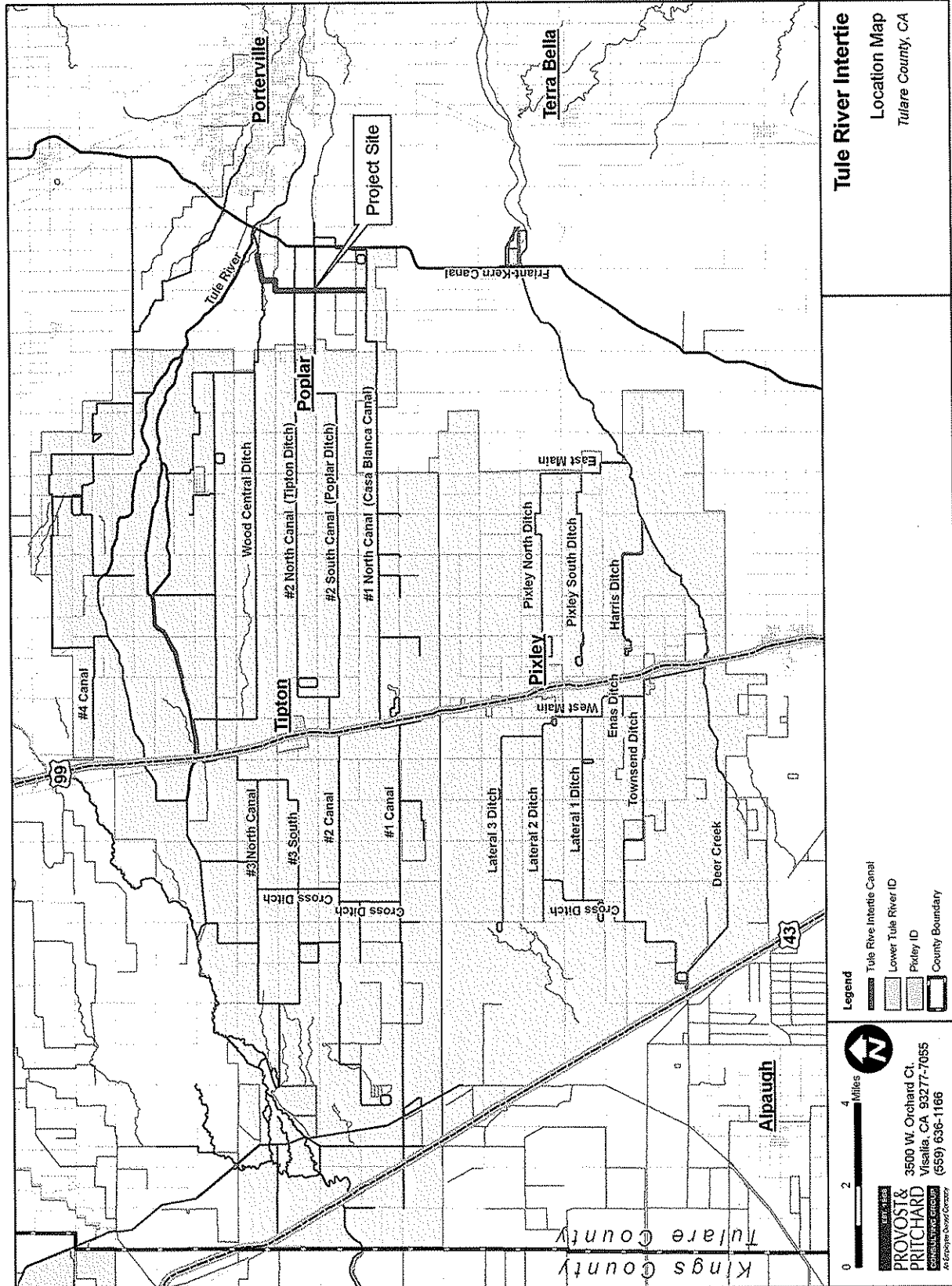
The Sacramento Fish and Wildlife Office would like to thank you and your staff for their assistance in providing information, ground-truthing, and commitment to working with us to conserve listed species. Please contact Susan Jones or Michael Welsh at (916) 414-6600 with questions about the Tule River Intertie Project.

Attachments (3)

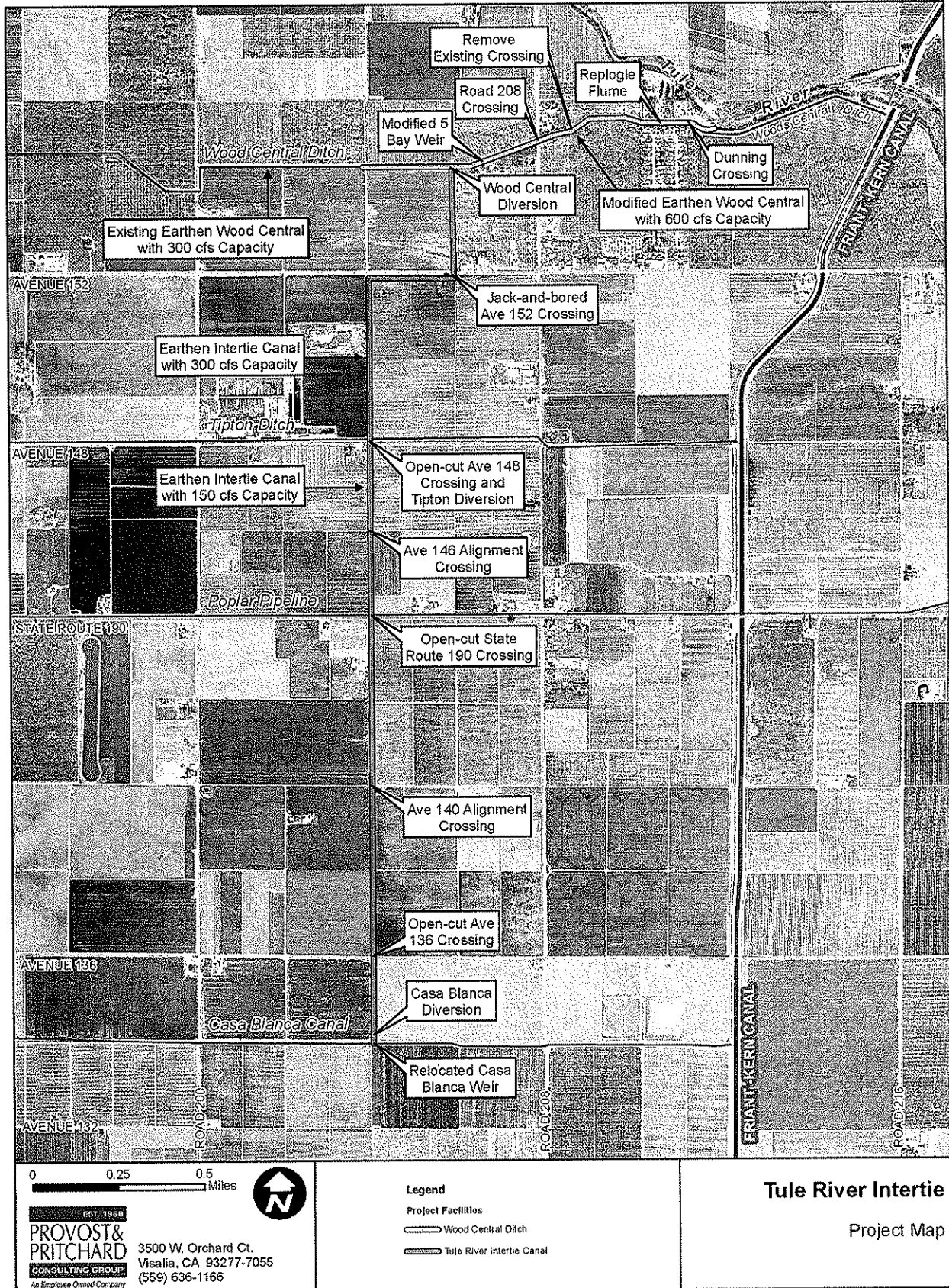
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- CNDDDB (California Natural Diversity Database) 2009. California Natural Diversity Database Rare Find. California Department of Fish and Game, Sacramento, CA
- Cypher, B. L. 2000. Effects of roads on San Joaquin kit foxes: a review and synthesis of existing data. 1-59. Fresno, CA, Endangered Species Recovery Program.
- USFWS (United States Fish and Wildlife Service) 1998. Recovery plan for Upland Species of the San Joaquin Valley, California. Region 1, Portland, OR. 319 pp.
- USFWS 1999. Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance. Sacramento Fish and Wildlife Office. 8 pp.

- Vanherweg, W. J. 2007. Lower Tule River Irrigation District's Tule River Intertie Project Biological Resource Assessment. Report prepared for Provost & Pritchard Engineering Group, Inc. June 2007. 9pp + Attachment.
- Warrick, Gregory D., Howard O. Clark, Jr., Patrick A. Kelly, Daniel F. Williams, and Brian L. Cypher. Use of Agricultural Lands by San Joaquin Kit Foxes. Western North American Naturalist 67(2). 2007. 8 pp.

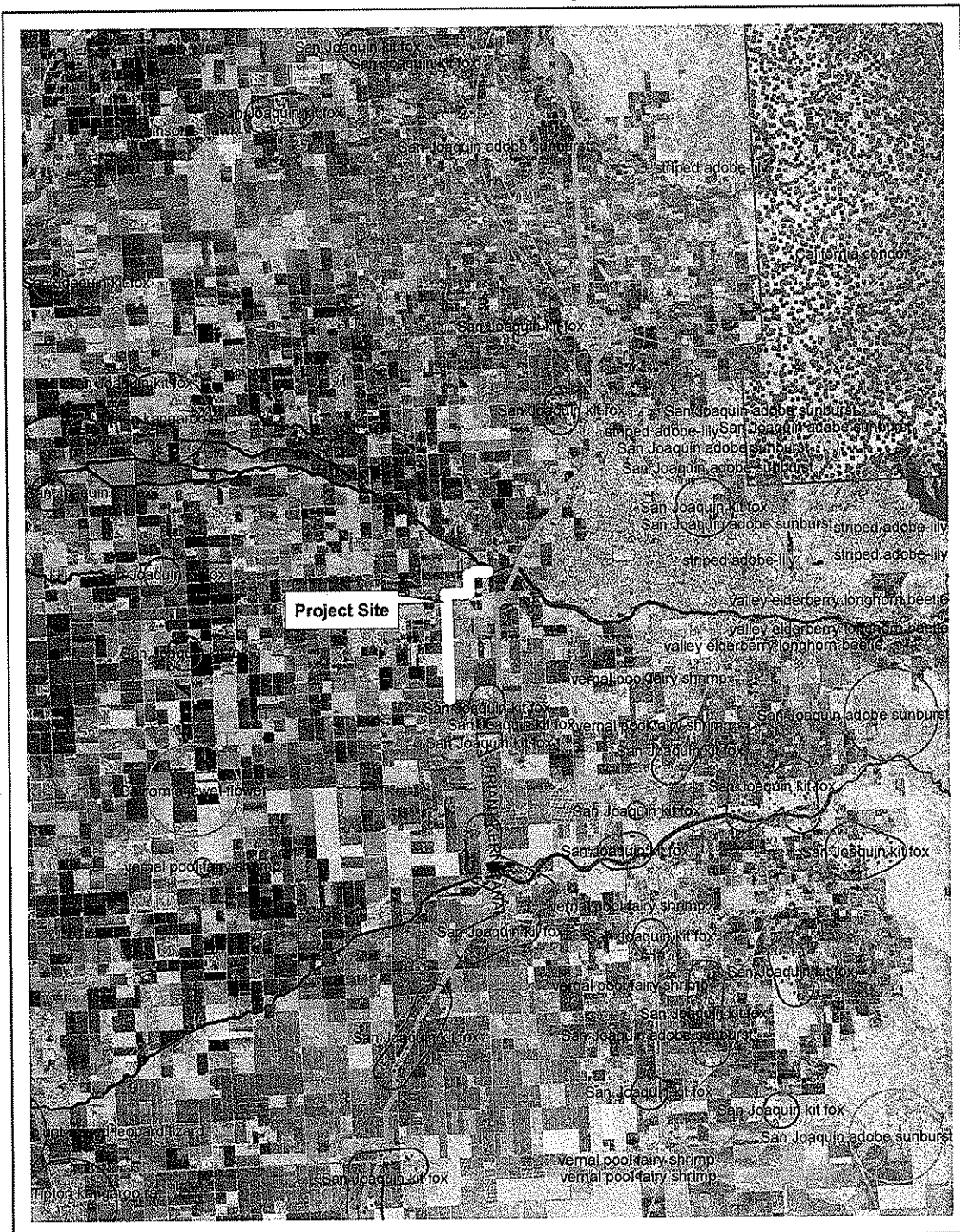


Attachment 1





Lower Tule River Irrigation District  
Intertie Canal ARRA Project (EA 09- 73)



# RECLAMATION



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